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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/757,360 | 01/08/2001 | Charles E. Cantwell | 10003918-1 | 6629 |

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

NGUYEN, DAVID Q

| ART UNIT | PAPER NUMBER |
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2681

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,360

Applicant(s)CHARLES E. CANTWELL, BOISE,
ID;**Examiner**

David Q Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 06/28/04 have been fully considered but they are not persuasive.

In response to Applicant's Remarks, on page 2, Applicants argue: " Dufour does not disclose, for each base station wirelessly communicating with the mobile terminal, discovering a location of a coverage area for the base station. Dufour does not disclose discovering a location of a coverage area for any base station. The only location disclosed in Dufour are the locations of the base stations and the calculated locations of the mobile terminals."

Examiner agrees with Applicants that Dufour discloses calculating locations of the mobile terminals. However, Dufour also discloses measuring signal strength, propagation delay, or both from serving base station and the base station of each handoff cell (see col. 5, lines 50-55). It is apparent that Dufour discloses the coverage area of each base station, area where the mobile terminals pickup signal of the serving base station, area where the mobile terminals are getting out of the serving base station to hand off to another base station. Moreover, Dufour shows that the coverage area of each base station serving the mobile terminal 24 (please see fig. 2).

In sum, Dufour clearly discloses, for each base station wirelessly communicating with the mobile terminal, discovering a location of a coverage area for the base station; discovering a location of a coverage area for any base station.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3-6, 8, 10-13,15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Dufour (US Patent Number 5613205).

Regarding claims 1 and 8, Dufour discloses a method and system for locating an object device wirelessly communicating with at least one node, the method and system comprising: a node searcher configured to discover the nodes wirelessly communicating with the object device (see col. 3, lines 9-23); for each node wirelessly communicating with the object device, a coverage area inspector configured to discover a location of a coverage area for the node (see col. 3, lines 23-27); an area of location finder configured to discover an area of location for the object device from the location of the coverage area for each node wirelessly communicating with the object device (see col. 3, lines 27-37).

Regarding claim 15, Dufour discloses a program storage device readable by a computer, tangibly embodying a program, applet or instructions executable by the computer to perform method steps for locating an object device wirelessly communicating with at least one node, the method steps comprising: (a) discovering the nodes wirelessly communicating with the object device; (b) for each node wirelessly communicating with the object device, discovering a location of a coverage area for the node; and, (c) discovering an area of location for the object

device from the location of the coverage area for each node wirelessly communicating with the object device (see explanation in claims 1 and 8).

Regarding claims 3,10 and 17, Dufour also discloses an inquirer configured to query nodes to discover whether the object device is wirelessly communicating with the nodes (see col. 3, lines 15-20).

Regarding claims 4-5,11-12 and 18, Dufour also discloses a node reader configured to read the location of the coverage area for each node wirelessly communicating with the object device (see col. 3, lines 23-37); a calculator configured to calculate the location of the coverage area from the node location (see col. 3, lines 23-37).

Regarding claims 6,13 and 19, Dufour also discloses a mapper configured to discover a region common to the coverage areas for each node communicating wirelessly with the object device (see col. 3, lines 31-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2,9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour (US Patent Number 5613205) in view of Yahagi (US Patent Number 5613199).

Regarding claims 2,9 and 16, Dufour discloses a method, a system and a program storage device readable by a computer comprising all of limitations as claimed in claims 1,8 and 15. Dufour fail to disclose querying nodes to discover devices wirelessly communicating with each node; (b) generating an index of devices wirelessly communicating with each node and the nodes to which each device is wirelessly communicating; (c) selecting the object device from the index; and, (d) reading the index to discover the nodes wirelessly communicating with the object device. However, Yahagi discloses querying nodes to discover devices wirelessly communicating with each node (see fig. 11a; col. 8, lines 27 to col. 9, line 20; col. 8, lines 27-47); generating an index of devices wirelessly communicating with each node and the nodes to which each device is wirelessly communicating (see fig. 11a; col. 8, lines 27 to col. 9, line 20; col. 8, lines 38-47); selecting the object device from the index (see fig. 11a; col. 8, lines 27 to col. 9, line 20; and reading the index to discover the nodes wirelessly communicating with the object device (see fig. 11a; col. 8, lines 27 to col. 9, line 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Yahagi to Dufour in order to system can set up handoff calls from serving node to neighbor node in order to avoid drop service.

4. Claims 7,14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour (US Patent Number 5613205).

Regarding claims 7,14 and 20, Dufour discloses identifying a region of each node can maintain a call (see col. 3, lines 15-20). It is apparent that Dufour would suggest a mapper configured to discover a region excluding the coverage areas for each node not communicating

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wirelessly with the object device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching to Dufour in order to system can set up handoff calls from serving node to neighbor node in order to avoid drop service.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q Nguyen whose telephone number is 703-605-4254. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika A Gary can be reached on 703-308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN

David Nguyen


ERICA GARY
PATENT EXAMINER